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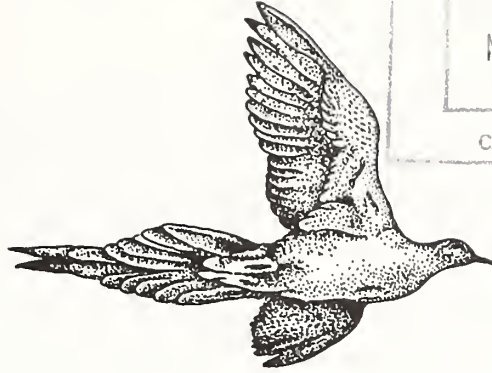
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Habitat management for

MOURNING DOVE



In Kansas

The mourning dove (*Zenaidura macroura*) is one of the most popular native game birds in Kansas. They are often called "turtle" doves. The mourning dove belongs to the pigeon family and is by far the most abundant and widespread species of dove in North America. The continental population is estimated to be about 500 million birds.

Doves nest in all 48 contiguous states and have the longest breeding season of any North American bird. Nests with eggs may be found some years as early as the first of April in Kansas. Kansas doves often nest four times per season, and five broods per year are not uncommon. Occupied nests have been found every month of the year in some southern states. This long nesting season helps insure survival of the population and is another reason why the birds can withstand a harvest each hunting season and still maintain optimum breeding populations.

Mourning doves begin to gather into large flocks in September for their migration southward. By mid-October most of the doves are gone from Kansas. Although a few doves stay in Kansas over winter especially along the southern tier of counties in the eastern half of the state, the majority migrate to the gulf states and Mexico where winter will be more tolerable. Migration is made at a cruising speed, not too fast, but steady, and the flock may travel 100 to 150 miles per day.

The doves return from their southern "resorts" in March and April. Upon their return the males begin establishing a nesting territory and looking for a mate. To the casual observer, the most noticeable aspect of the dove's breeding season is their cooing. This cooing is done partly to attract females and partly to let other males know that he has staked a territorial claim. He also puts on a courtship display flight, in which he rises to over 100 feet in the air and then, with extended wings, glides slowly back to earth in a broad spiral flight. Upon finding a mate the cooing and displaying tendencies subside.

A horizontal branch or fork in a tree makes a good place for the dove's nest. The male usually selects the nest site. Nest building takes place in the morning. The nest consists of a platform of twigs carelessly spread on the fork of a tree limb or stuck in a bush and is usually no architectural triumph. A dove's nest looks old the minute it is finished.

During construction the female sits on the chosen nest site while the male brings nest material--one piece at a time. He usually lands on the female's back when he arrives with the material. Then he passes the twig to her and she puts it in place. His weight apparently helps to compact the nest. This may go on for 30 or 40 trips. If he pecks her gently under the chin, she steps aside while he rearranges the material to his satisfaction. The female then resumes her place on the nest while he goes looking for more twigs. In some cases, mourning doves use the abandoned nests of other birds--often building their rickety nests atop stronger ones. Windbreaks often make good nesting sites for doves. Red cedar and pine trees are often preferred.

Doves normally lay two pure white eggs per clutch--although instinct sometimes goes haywire and she may lay one, three, or even four eggs. Most dove nests cannot hold over two young, so additional offspring rarely survive. It is a relatively short nesting cycle but a steady and continuous one. The mourning dove lays her usual two eggs on successive days, and incubation begins as soon as the first egg is laid. The eggs usually hatch in 14 days. In another 14 or 15 days the young doves leave their nest, and they are on their own. The entire nesting cycle lasts about one month. As soon as one set of young leaves the nest, two new white eggs are laid for the next brood. With predation, wind storms, and weather taking their toll of the nests, eggs, and young, only about half of the nesting attempts are successful. If a pair of mourning doves raises four to six young per season, they have performed well.

Both parents take care of the eggs and the young. The nest is covered almost continuously from the time of laying until the young are grown. At birth, the young doves are blind, helpless, and practically naked. They are so weak they can hardly keep their heads erect. The gnome-like little creatures wouldn't take any beauty prizes either and as one author describes them they would probably be voted "top ugly honors." The young grow very rapidly on a diet of "pigeon milk"--a thick white substance secreted in the crop of both parents. The nestlings place their bills inside of the adult's open bill to take the "milk." "Pigeon milk" is similar to the milk of a female rabbit--thick, creamy, and rich in calcium and vitamins. Male doves and pigeons are the only known male creatures in the world that lactate for the purpose of feeding their offspring. After several days, seeds are gradually worked into their diet. When the young doves are about three days old, they open their eyes and feather sheaths begin to appear on the wings and tail. At one week the young dove's wings are partly feathered and the bird can crawl around. At nine days old, pin feathers are evident on the body and at two weeks the young birds usually leave the nest. Young doves may return to the nest the first few days after leaving to be fed by their parents. The juvenile plumage is complete about one month after hatching. In about three more months all traces of the juvenile plumage are gone, and the young of the year resemble adults. If they survive, they will become proud parents the following year.

Doves are not particularly hardy birds and have a very high natural mortality (death) rate. Mortality may run as high as 50 to 60 percent yearly from weather, disease, predation, hunting, and accidents. Inclement weather and starvation cause the heaviest mortality while hunters normally harvest less than 10 percent of the fall population. This high mortality will occur regardless of whether the birds are hunted or not.

HABITAT NEEDS

The preferred habitat for mourning doves is a mixture of brushy areas, cropland, and grassland. Brushy and wooded areas are used for nesting, roosting, and loafing. Cropland and grassland are used for feeding. This mixture of habitat types, creates the "edge effect" that is conducive to many wildlife species. Windbreaks and hedgerows adjoining cropland are good habitat because food and cover are in close proximity. Doves rarely penetrate heavy timber. Grassland may be used for both feeding and nesting if trees and brush are scarce. Ground nests in growing wheat and wheat stubble are quite common in western Kansas. Wheat stubble left after harvest and on summer fallow ground seems to be a favorite for nesting doves. Daily movement is usually restricted to that necessary to obtain food, water, and grit. This is normally limited to about a 2-mile radius.

Water--Doves usually drink at least twice a day, normally just after feeding in the morning and evening. They prefer small, shallow pools devoid of vegetation. They seldom use water where tall grass or trees come to the water's edge. Since doves rarely go directly to water, a few scattered trees around a pond provide a good place for loafing prior to watering. Unlike most other birds, doves drink by sucking up the water rather than tilting their heads back. Gravel pits, sand pits, and roads are common sources of grit for most Kansas birds.

Food--The mourning dove is essentially a seed-eating bird whose diet consists mainly of waste agricultural grains and weed seeds. At least 300 plant foods are utilized. Some common choice foods are the seeds of wheat, milo, corn, foxtail, switchgrass, croton, ragweed, sunflowers, and pigweed. Doves can be classified as opportunists as they eat the seeds of grasses, forbs, and crops as they ripen; changing their feeding habits as different foods become available. They are primarily ground feeders because they have weak feet and legs. They neither scratch the ground nor cling to upright stems to pick off seeds. They depend on food which is available on the surface. Little or no cover is required for mourning doves while feeding as they prefer areas that are practically bare. The birds are always alert for predators from both the ground and the air.

HABITAT MANAGEMENT SUGGESTIONS

The mourning dove is as equally at home in our suburban areas as in our countryside. It is highly adaptable to man-made habitat and there are probably more doves today than there were before Kansas was settled. Windbreaks and hedgerows help to increase nesting cover in rural areas. Small cities and towns resemble the open-type wooded areas doves prefer. The construction of thousands of farmponds also serves as additional watering sites. Our agricultural cropping patterns and the crops we produce are definitely to the doves' liking.

The key to successful management of the mourning dove (as with all species) is the proper management of their habitat. The trend to larger operating units along with current clean farming methods is doing away with fencerow vegetation. Old property line fencerows are being removed

as fields are enlarged. Larger farming equipment tends to promote larger fields, less edge, and less diversity of cover. When windbreaks and fencerows are removed, permanent habitat is lost that mourning doves and other wildlife depend upon. The following list of management suggestions can improve habitat:

1. Maintain existing windbreaks, hedgerows, woodlots, odd areas, and fencerows.
2. Establish windbreaks, hedgerows, woodlots, and odd areas.
3. Reduced tillage of grain crops leaves waste grain on the surface for foraging birds, and nests are often built in crop stubble.
4. Construct ponds, pits, or tanks for additional watering facilities.
5. Establish or maintain a border of coniferous trees around woodlots on odd areas and on field borders.
6. If hunting is a purpose, the development of feed fields to attract and hold doves for longer periods may be desirable. Plantings of oil type sunflowers, pearl or brown top millet, or milo are good for attracting doves. Hunting on feed fields should be limited to three days per week to reduce hunting pressure and maintain dove use.

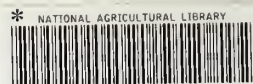
The dove's future in Kansas for the most part is bright. With a continued abundance of nesting areas and food from small grain, we can look forward to many years of good dove populations.

The Soil Conservation Service, local conservation districts, Kansas Fish and Game Commission, and Kansas Cooperative Extension Service offer guidance on soil, water, plants, and wildlife habitat management.



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